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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,246	06/09/2006	Tor Bruun	2005_1437A	8839
	7590		EXAMINER	
1030 15th Street, N.W.,			LEO, LEONARD R	
Suite 400 East Washington, DC 20005-1503			ART UNIT	PAPER NUMBER
			3744	
			MAIL DATE	DELIVERY MODE
			09/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
Office Action Commons	10/552,246	BRUUN ET AL.				
Office Action Summary	Examiner	Art Unit				
	Leonard R. Leo	3744				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence add	lress			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 6(a). In no event, however, may a reply be timil apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	J. nely filed the mailing date of this con D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on						
	- action is non-final.					
3) Since this application is in condition for allowan						
closed in accordance with the practice under E.	x parte Quayle, 1935 C.D. 11, 45	i3 O.G. 213.				
Disposition of Claims						
4)⊠ Claim(s) <u>23-46</u> is/are pending in the application	1.					
4a) Of the above claim(s) is/are withdraw						
5) Claim(s) is/are allowed.						
6) Claim(s) is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) 23-46 are subject to restriction and/or	election requirement.					
Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction			P 1 121(d)			
11) The oath or declaration is objected to by the Exa			` '			
	ammer. Note the attached Office	Action of format 10	J-102.			
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documents	s have been received.					
2. Certified copies of the priority documents	• •					
3. Copies of the certified copies of the priori		d in this National S	Stage			
	application from the International Bureau (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a list of	of the certified copies not receive	a.				
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)	Paper No(s)/Mail Da 5) Notice of Informal Pa					
Paper No(s)/Mail Date	6) Other:					

## **DETAILED ACTION**

## Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 23-27, drawn to a heat exchanger.

Group II, claim(s) 28-46, drawn to a manifold.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

the novelty of the combination does not rely on the details of the specific subcombination.

Upon the election of the invention of Group I, this application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Figure 4.1

Figure 4.2

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Figure 4.1 - Claims 23-27

Figure 4.2 - Claim 24

The following claim(s) are generic: None.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the number of tunnels are the special technical features.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR

1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The

examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the

organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ Leonard R. Leo / PRIMARY EXAMINER ART UNIT 3744

September 9, 2009